

AMENDMENTS TO THE SPECIFICATION:

Please amend the title as follows:

--STRIP LINE DEVICE, ~~MEMBER TO BE MOUNTED ON~~ PRINTED WIRING BOARD, MOUNTING MEMBER, CIRCUIT BOARD, SEMICONDUCTOR PACKAGE, AND ~~ITS FABRICATIONS~~ METHOD OF FORMING SAME--

Please delete the paragraph beginning on page 8, below the heading Disclosure of the Invention and ending on page 17 above the title Brief Description of the Drawings and add the following new paragraph:

-- In order to attain the object, the invention of claim 1 is characterized in that the invention has a metal which has a valve action, a dielectric coating formed on a surface of the metal having the valve action, and a conductive material layer formed around the metal having the valve action via the dielectric coating, a pair of first electrode leading terminals is provided on both ends in the longitudinal direction of the metal to make connection to through holes of a printed wiring board and a pair of second electrode leading terminals is provided on different positions of the metal member to make connection to through holes of the printed wiring board.

It is preferable to form the metal having the valve action into a rectangular, a circle or oval, a ring, or a plate or foil in cross section.

It is preferable to bend or curve both ends of a stripline device.

It is preferable for the metal having the valve action to have a longitudinal width larger than a cross sectional width.

It is preferable that the electrode leading terminal in contact with the printed wiring board have an area larger than a cross sectional area of the electrode leading terminal not coming

into contact with the printed wiring board.

According to a second aspect of the present invention, a stripline device has a metal which has a valve action, a dielectric coating formed on a surface of the metal, a conductive material layer formed around the metal via the dielectric coating, and a metal member which is disposed in contact with the conductive material layer and transmits direct-current power.

It is preferable that the stripline device comprise a first electrode leading terminal for connecting an end of the metal having the valve action and a printed wiring board, second electrode leading terminals connected to the printed wiring board be integrally formed on the metal member, and

the second electrode leading terminals and the first electrode leading terminals connected to both ends of the metal having the valve action form four terminals.

Further, it is preferable that the first electrode leading terminal have a connecting member connected to the metal having the valve action, a first leg member connected to a wire on the printed wiring board, and a first body member for connecting the connecting member and the leg member,

the connecting member and the first leg member be connected almost perpendicularly to both ends in the longitudinal direction of the first body member, the second electrode leading terminal integrally formed on the metal member have a second body member and a second leg member for making connection to a wire on the printed wiring board,

the second body members be connected to an upper end of the same mounting surface of both ends in the longitudinal direction of the metal member, and

the second leg member be connected to the body member almost in parallel with the mounting surface.

Moreover, according to the second aspect of the present invention, it is preferable that the first electrode leading terminal have a connecting member connected to the metal having

the valve action, a first leg member connected to a wire on the printed wiring board, and a first body member for connecting the connecting member and the leg member,

a member be provided to interpose the first body member between the connecting member connected to the first body member and the first leg member on both ends in the longitudinal direction of the first body member and connect the connecting member and the first leg member almost perpendicularly to the first body member, and

the second electrode leading terminals have second leg members connected to both ends in the longitudinal direction of the metal member and near one of the long sides of the metal member almost in parallel with the mounting surface, and

it is preferable that the first electrode terminal have a connecting member connected to the metal having the valve action and a first body member connected to a wire on the printed wiring board,

the connecting member be connected to an end in the longitudinal direction of the first body member almost perpendicularly to the first body member, and

the second electrode leading terminal have a second body member connected almost perpendicularly to the vicinity of one of the long sides of both ends in the longitudinal direction of the metal member.

It is preferable that the first electrode leading terminal have a connecting member connected to the metal having the valve action and a first body member connected to a wire on the printed wiring board,

the connecting member be connected to an end in the longitudinal direction of the first body member almost perpendicularly to the first body member, and

the second electrode leading terminal have a second body member connected almost perpendicularly to a central area near both ends in the longitudinal direction of a mounting surface of

the metal member, and

the first electrode leading terminal and the second electrode leading terminal be disposed almost in line with each other in the longitudinal direction of the mounting surface.

Particularly, in the second aspect, it is preferable that the first leg member and the second leg member be larger in cross sectional area than the first body member and the second body member not coming into contact with the printed wiring board.

According to the first and second aspects of the present invention, it is preferable for the conductive material layer to include a layer of a conducting polymer,

it is preferable that the conducting polymer be one or more compounds selected from the group consisting of polypyrrole, polythiophene, and polyaniline, or a derivative of the compounds,

it is preferable that the conductive material layer have the conducting polymer layer disposed on the side of the dielectric coating and a conductive paste layer formed on the conducting polymer layer, and

it is preferable to fix the metal member on the conductive paste layer.

According to the first and second aspects of the present invention, it is preferable that the metal having the valve action be a metal selected from the group consisting of aluminum, tantalum, and niobium, and

it is preferable that the metal having the valve action, the dielectric coating, and the conductive material layer be molded with resin.

A third aspect of the present invention is a printed wiring board mounting member, characterized in that the mounting member comprises a low impedance line device having a laminated structure in which a dielectric coating having a dielectric loss is interposed between first and second conductors, first electrode leading terminals which are disposed on both ends of one of the conductors to make connection to a printed wiring

board, and second electrode leading terminals for connecting both ends of a metal member for mounting the low impedance line device and the printed wiring board,

the first electrode leading terminal has a connecting member connected to the first conductor, a first leg member connected to a wire on the printed wiring board, and a first body member for connecting the connecting member and the leg member,

the connecting member and first leg member comprise members on both ends in the longitudinal direction of the first body member to make connection almost perpendicularly to the first body member,

the second electrode leading terminal has a second body member connected to the metal member and a second leg member connected to a wire on the printed wiring board,

the second body members are connected to an end on the same long side of both ends in the longitudinal direction of a mounting surface of the metal member, and

the second leg member is connected to the second body member almost in parallel with the mounting surface.

A fourth aspect of the present invention is a printed wiring board mounting member, characterized in that the mounting member comprises a low impedance line device having a laminated structure in which a dielectric coating having a dielectric loss is interposed between first and second conductors, first electrode leading terminals which are disposed on both ends of one of the conductors to make connection to a printed wiring board, and second electrode leading terminals which are disposed on both ends of a metal member for mounting the low impedance line device to make connection to the printed wiring board,

the first electrode leading terminal has a connecting member connected to the first conductor, a first leg member connected to a wire on the printed wiring board, and a first body member for connecting the connecting member and the leg member,

members are provided on both ends in the longitudinal

direction of the first body member to interpose the first body member between the connecting member and the first leg member and make connection almost perpendicularly to the first body member, and

the second electrode leading terminals have second leg members connected to an end on the same long side of both ends in the longitudinal direction of a mounting surface of the metal member almost in parallel with the mounting surface.

A fifth aspect of the present invention is a printed wiring board mounting member, characterized in that the mounting member comprises a low impedance line device having a laminated structure in which a dielectric coating having a dielectric loss is interposed between first and second conductors, first electrode leading terminals which are disposed on both ends of one of the conductors to make connection to a printed wiring board, and second electrode leading terminals which are disposed on both ends of a metal member for mounting the low impedance line device to make connection to the printed wiring board,

the first electrode leading terminal has a connecting member connected to the first conductor, a first leg member connected to a wire on the printed wiring board, and a first body member for connecting the connecting member and the leg member,

the connecting member is connected almost perpendicularly to an end in the longitudinal direction of the first body member, and

the second electrode leading terminals have second body members connected to an end on the same long side of both ends in the longitudinal direction of a mounting surface of the metal member almost perpendicularly to the mounting surface.

A sixth aspect of the present invention is a printed wiring board mounting member, characterized in that the mounting member comprises a low impedance line device having a laminated structure in which a dielectric coating having a dielectric loss is interposed between first and second conductors, first

electrode leading terminals which are disposed on both ends of one of the conductors to make connection to a printed wiring board, and second electrode leading terminals which are disposed on both ends of a metal member for mounting the low impedance line device to make connection to the printed wiring board,

the first electrode leading terminal has a connecting member connected to the first conductor, a first leg member connected to a wire on the printed wiring board, and a first body member for connecting the connecting member and the leg member,

the connecting member is connected almost perpendicularly to a longitudinal end of the first body member,

the second electrode leading terminal has a second body member connected almost to the center of a short side on both ends in the longitudinal direction of a mounting surface of the metal member almost perpendicularly to the short side, and

the first electrode leading terminal and the second electrode leading terminal are disposed almost in line with each other in the longitudinal direction of the mounting surface.

Particularly it is preferable that the first leg member and the second leg member in contact with the printed wiring board be larger in cross sectional area than the first body member and the second body member not coming into contact with the printed wiring board, and

it is preferable that the low impedance line device be molded with resin.

A seventh aspect of the present invention is a circuit board having a metal which has a valve action, a dielectric coating formed on a surface of the metal having the valve action, a conductive material layer formed around the metal having the valve action via the dielectric coating, and a metal member for transmitting direct-current power to be inputted, characterized in that the circuit board comprises a stripline device having first and second input/output terminals on both ends of the metal having the valve action and both ends of the metal member, a

board, and a first power supply wire and a second power supply wire formed on the board, and

the first power supply wire and the second power supply wire are connected to the first and second input/output terminals, respectively.

Particularly it is preferable that circuit elements for receiving power of an equal voltage be disposed on the circuit board in an integrated manner and an equal power be supplied by a bus bar.

An eighth aspect of the present invention is a semiconductor package having a metal which has a valve action, a dielectric coating formed on a surface of the metal having the valve action, a conductive material layer formed around the metal having the valve action via the dielectric coating, and a metal member for transmitting direct-current power to be inputted, characterized in that the semiconductor package comprises a stripline device having first and second input/output terminals on both ends of the metal having the valve action and both ends of the metal member, a substrate made of an insulating material, and a semiconductor chip mounted on the substrate,

the substrate has a first connector pin and a second connector pin which are connected to the device mounted on the board,

the semiconductor chip has a first power supply wire and a second power supply wire, and

the first and second input/output terminals are connected to the connector pins of the substrate and the power supply wires of the semiconductor chip, respectively.

A ninth aspect of the present invention is a method of forming a stripline device, characterized by comprising the steps of:

forming a metal having a valve action,

forming a dielectric coating on a surface of the metal having the valve action,



forming a conductive material layer around the metal having the valve action via the dielectric coating to form a strip line,

bonding the strip line and a plurality of substrates, on which a metal member having a second electrode leading terminal and a lead frame serving as a first electrode leading terminal are integrally formed, after performing positioning such that the conductive material layer and the metal member are in contact with each other and the lead frame and the metal having the valve action are in contact with each other, and

cutting the second electrode leading terminal and the lead frame from the substrate at a predetermined distance to complete a stripline device.--